

90
AE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:

Martin H. Graham

Serial No.: 09/221,291

Filed: December 23, 1998

For: Biphase Multiple Level Communications

)
) Art Unit: 2631

)
) Examiner: Burd, Kevin Michael

)
) I hereby certify that this correspondence is being deposited
) with the United States Postal Service as first class mail with
) sufficient postage in an envelope addressed to the Commissioner
) for Patents, PO Box 1450, Alexandria, Virginia 22313-1450

)
) on February 12, 2007
) Date of Deposit

)
) Conny Willesen
) Name of Person Mailing Correspondence

)
) Conny Willesen 02-12-2007
) Signature Date

Mail Stop Appeal Brief-Patents
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO REQUEST FOR REHEARING

Dear Sir:

This is a response to Request for Rehearing (hereinafter Request).

This Request Should be Denied

The Board on September 14, 2006 determined that the rejection under 35 USC §103(a) in this application was improper and reversed the rejections of claims 19-35.

The Request states applicant made an improper argument. Specifically:

The pulse position and coding of Vanderpool has been placed into the system of Gord, and not the other way around. Applicant has argued a rejection that was never made.

The Examiner's Answer already made this argument. Applicant argued that neither reference supported the combination and the Board agreed. Moreover, if an improper

argument was made in the Reply Brief it should have been raised in a response to the Reply Brief, as provided in 37 CFR 41.43.

The inventor is 79 years old and had heart surgery last year. He is a retired Professor of Electrical Engineering from the University of California at Berkeley, and holds several patents. Minus extensions of time, this application has been pending for over 7 years.

Applicant acknowledges that every patent is important and should be thoroughly examined. However, this application has already received more than a thorough examination. It has seen three final rejections, six non-final rejections, and several RCEs. The claims in the original application filed on December 23, 1998 are directed to the very concept of the current claims, and are close in scope to the current claims.¹

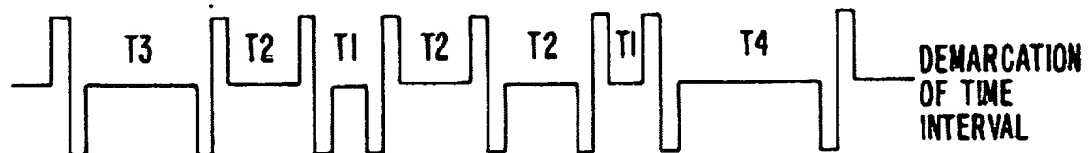
There are no reasons presented to justify a rehearing.

It is respectfully requested that this request for rehearing be denied.

In the event the Board decides that this should be reheard, applicant submits the following in response to the Request.

Whether Vanderpool is Placed in Gord or the Other Way Around, a 103 Rejection is Untenable

The present application describes a method for encoding data for transmission. The claimed invention, for all the claims except claims 22 and 23, is readily seen from Figure 2b of the application reproduced immediately below.



¹ Applicant does not want to leave the impression that final rejections were prematurely made or that too much time lapsed between office actions, neither are the case.

Fig. 2b of Graham

In the figure there are a series of bi-phasic pulses separated by time. Importantly, the application teaches using alternating first and second bi-phasic pulses. The first bi-phasic pulses are defined as having a first portion which is positive, and then a second portion which is negative. The second bi-phasic pulses are defined as pulses having a first portion which is negative, and then a second portion which is positive. In short, the pulses alternate “polarity.” As can be seen in Figure 2b, the bi-phasic pulses alternate, that is, there is a sequence of: a first bi-phasic pulse, a second bi-phasic pulse, a first bi-phasic pulse, a second bi-phasic pulse, etc. These pulses themselves do not indicate data. Rather, the time between the pulses is the indication of the data. Four different times (T1, T2, T3, T4) are shown in Figure 2. Each of these times represents a plurality of bits. For instance, T1 can equal 00, T2=01, T3=10, and T4=11. Thus, the duration or dead time between the bi-phasic pulses determines what data that is transmitted.

There are advantages to alternating the “polarity” of the bi-phasic pulses, which is the gist of the present invention. These alternating pulses, as described in the application, reduce interference between consecutive bi-phasic pulses so that the signal received can be more easily recovered. This is the sum and substance of claims 19, 20, 21, 24 and 25.

The dependent claims 22 and 23 add the concept that the bi-phasic pulses, themselves, can also be used to transmit data by varying their amplitude (claim 22) or by varying their pulse width (claim 23).

Vanderpool transmits data by the duration of dead time between the pulse frames 204 and 205, as shown below in Figure 4.

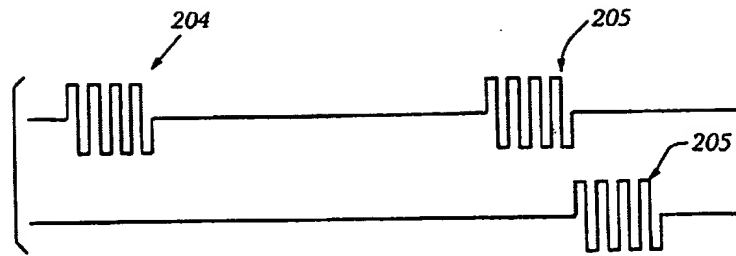


Fig. 4 OF VANDERPOOL, ET AL.

Gord illustrates first bi-phasic pulses and second bi-phasic pulses for input data as those terms are defined by the claims. However, the pulses do not alternate. The first pulses are used to transmit a binary 1 and the second pulses a binary 0. It is the pulses themselves which represent the data, not the time between them. There is no teaching in Gord of an advantage to alternating the pulses.

It is the Examiner's contention that if the pulse position encoding of Vanderpool is placed into Gord, the present claims are realized and that there is a motivation for this combination.

The Examiner contends that applicant has not addressed the motivation identified by the Examiner in the last office action. The Request states:

each possible choice of delay time may represent a separate set of multiple data bits. (Col. 2, lines 3-5, Vanderpool)²

From this the rejection concludes "Therefore more information can be transmitted than before during the same transmission period."

Applicant does not see any motivation in this rejection to place Vanderpool in Gord.

For sake of argument, assume Vanderpool is placed in Gord. Where is the teaching to alternate the pulses? Gord changes the polarity of the pulses only to transmit

² The full sentence in Vanderpool reads: In a preferred embodiment, each possible choice, for the data pulse, of delay time and transmission code may represent a separate set of multiple data bits.

data of one binary state followed by another. There is no hint of an advantage in doing this from Gord (or Vanderpool).

If the rejection is that with the combination of Vanderpool in Gord, the sequence of the claim will randomly occur, this is not a valid 103 rejection. This appears (to the extent it is understood) to be an anticipation rejection after a combination. Applicant is not aware of any such rejection. Moreover, it ignores the fact that such occurrences of a binary 1 and 0 in Gord when combined with Vanderpool are an unappreciated result, which lacks the teaching of the present application.

In summary, these are two references that should not be combined, there is no justification for the combination, and the Board should affirm its prior decision.

It is respectfully submitted that the rejection should be found to be improper.

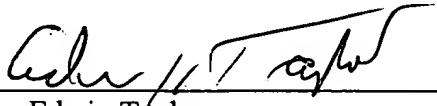
Charge Our Deposit Account

If there are any further charges not accounted for herein, please charge them to our deposit account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

Dated: 2/12/07

By: 
Edwin Taylor
Reg. No. 25,129

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025-1026
(408) 720-8598